



*Presented by:*

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Transportation Planning  
& Operations

**Amendments to:**

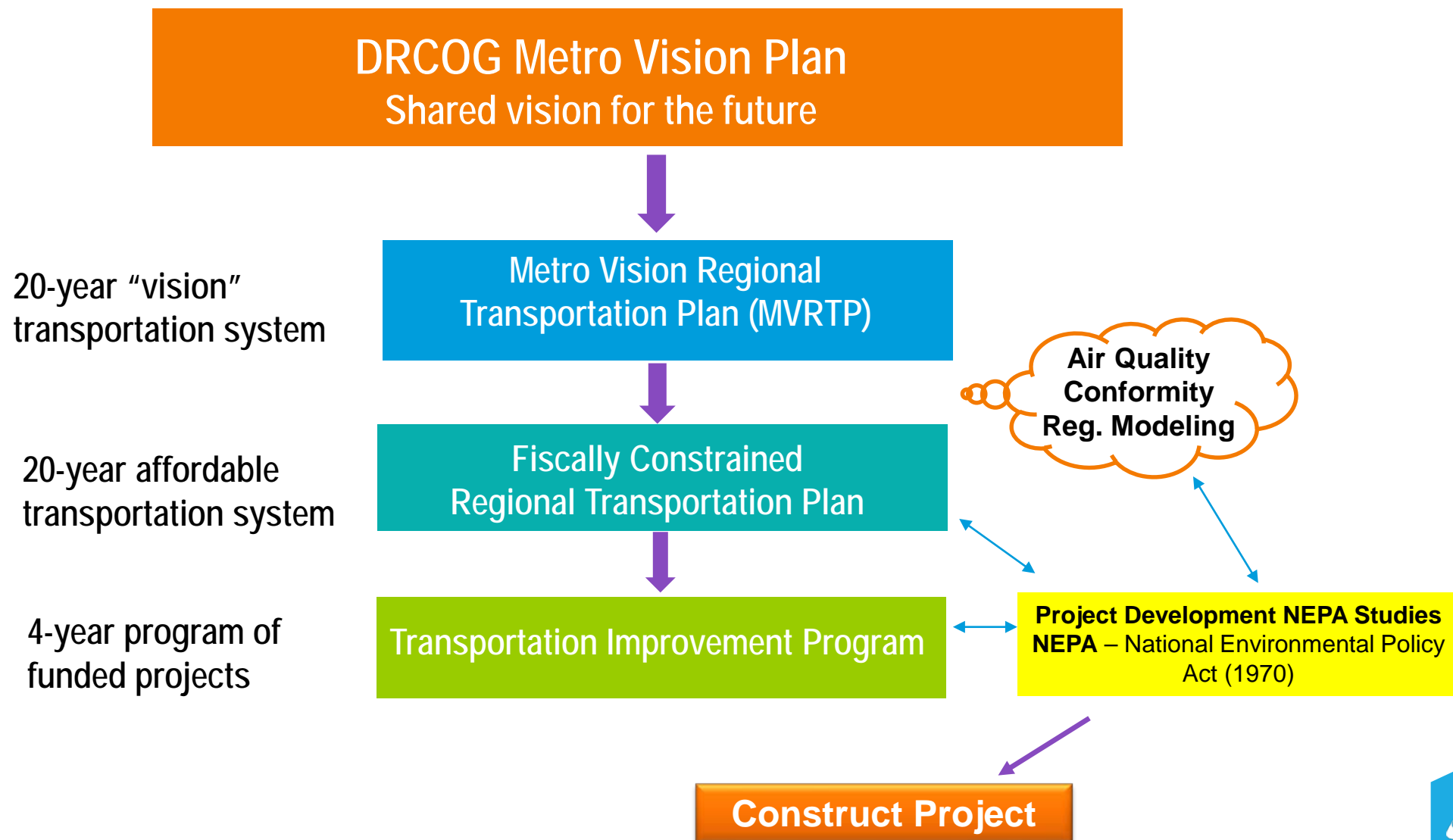
# 2040 Metro Vision Regional Transportation Plan & associated air quality conformity

Board of Directors

May 15, 2019

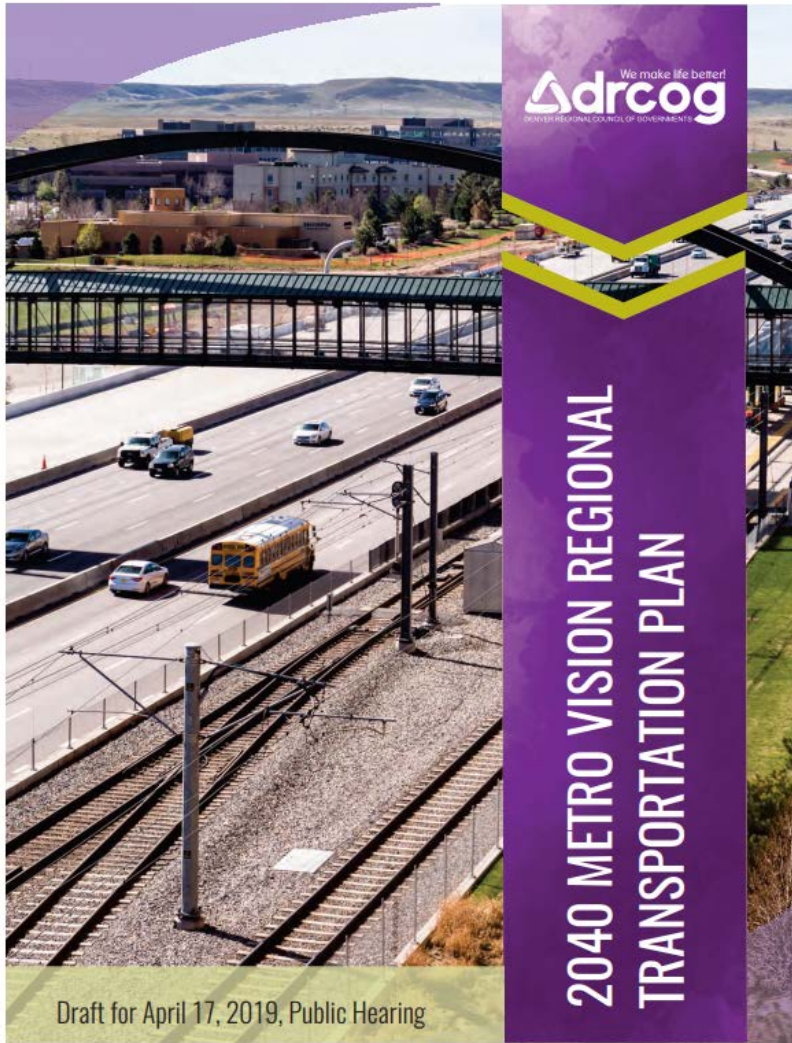


# Metro Vision Plan and 2040 MVRTP Overview





# 2040 Metro Vision Regional Transportation Plan Overview



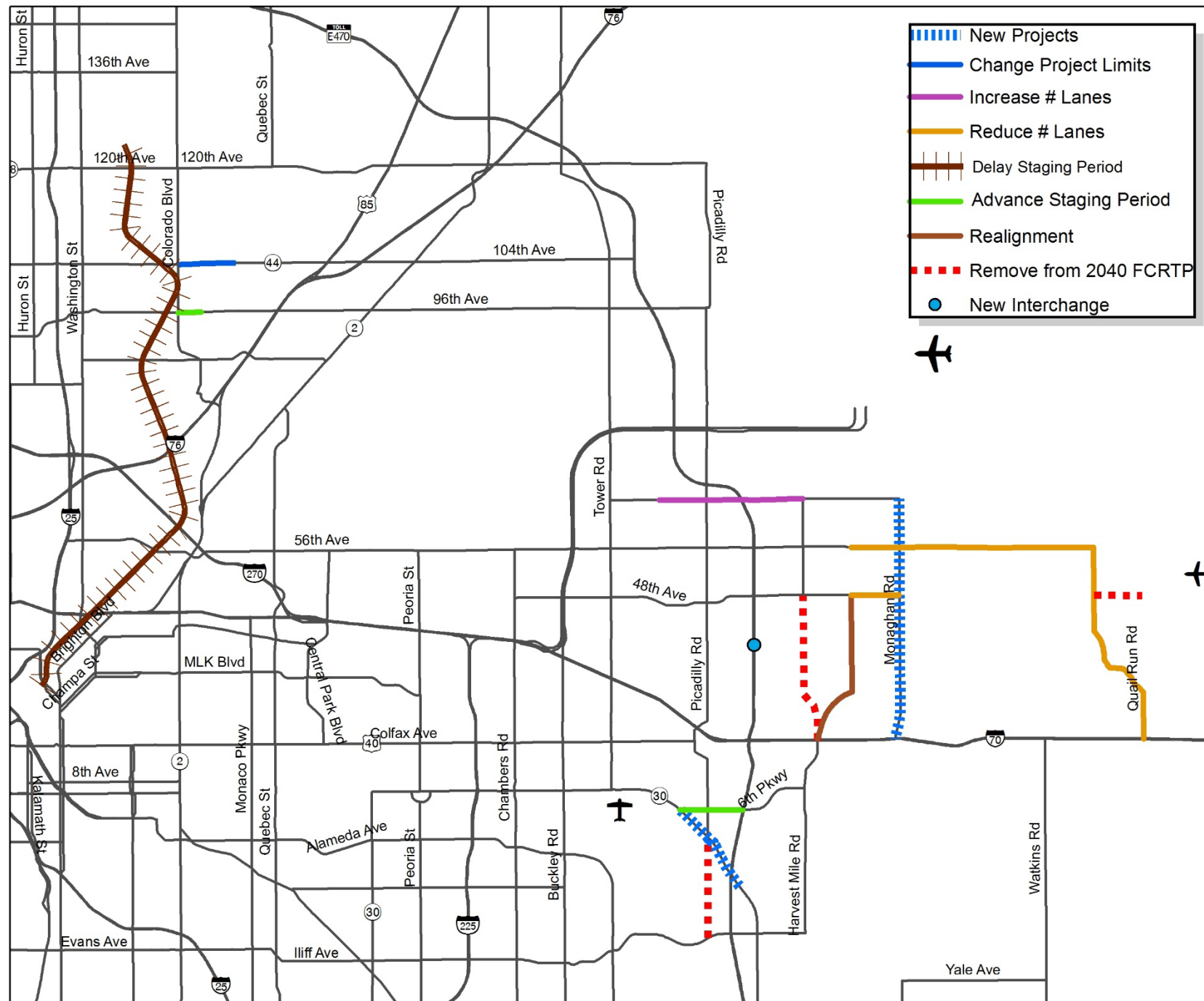
- Presents region's vision for multimodal transportation system
- Addresses federal requirements – core MPO function
- Identifies “fiscally constrained” (cost feasible) system & project investments
- Identifies major roadway capacity & rapid transit projects
- Determines eligibility for major projects to compete for Transportation Improvement Program funding
- Helps implement Metro Vision
- Is updated every four years and amended more frequently



# Requested Project Amendment Locations

## 3 Types of Amendments

- New Projects
- Removed Projects
- Air Quality Staging Period Changes





# Requested Project Amendments

Amendment Requestor	Project/Segment Description	Current 2040 MVRTP Status	Proposed 2040 MVRTP Project Amendment
City of Aurora	48th Avenue (Imboden Road to Quail Run Road): Widen 2 to 6 Lanes	2030-2040	Remove from 2040 MVRTP
City of Aurora	48th Avenue (Powhaton Road to Monaghan Road): New 6 Lanes	2030-2040	<ul style="list-style-type: none"><li>• Change to new 4 lanes</li><li>• Add initial 2 lanes in 2020-2029 AQ stage</li><li>• Complete full 4 lanes in 2030-2040 AQ stage</li></ul>
City of Aurora	56th Avenue (Powhaton Road to Imboden Road): Widen 2 to 6 Lanes	2020-2029	Change widening to 2 to 4 lanes in 2030-2040 AQ stage
City of Aurora	64th Avenue (Himalaya Road to Harvest Mile Road): Widen 2 to 4 Lanes	2020-2029	Add widening from 4 to 6 lanes in 2030-2040 AQ stage
City of Aurora	Harvest Mile Road (I-70 to 48th Avenue): New 6 Lanes	2020-2029	Remove I-70 to 48th Avenue segment from 2040 MVRTP. (Define new alignment in project below.)
City of Aurora	Harvest Mile Road/Powhaton Road (I-70 to 26th Avenue): New 6 Lanes	N/A	<ul style="list-style-type: none"><li>• New locally derived funded lanes with modified Harvest Mile Road alignment</li><li>• Add initial 2/4 lanes to 2020-2029 AQ stage</li><li>• Complete full 6 lanes in 2030-2040 stage</li></ul>
City of Aurora	Powhaton Road (26th Avenue to 48th Avenue): New 6 Lanes	N/A	<ul style="list-style-type: none"><li>• New locally derived funded 6 lanes</li><li>• Add to 2020-2029 AQ stage</li></ul>
City of Aurora	Monaghan Road (I-70 to 64th Avenue): <ul style="list-style-type: none"><li>• New 4 lanes between I-70 and 26th Avenue</li><li>• Widen 2 to 4 lanes between 26th Avenue and 56th Avenue</li><li>• New 4 lanes between 56th Avenue and 64th Avenue</li></ul>	N/A	<ul style="list-style-type: none"><li>• New locally derived funded projects</li><li>• Add to 2030-2040 AQ stage</li></ul>
City of Aurora	Picadilly Road (Jewell Avenue to 6th Avenue Parkway/SH-30): New 4 Lanes	2020-2029	Remove from 2040 MVRTP





# Requested Project Amendments (cont'd)

Amendment Requestor	Project/Segment Description	Current 2040 MVRTP Status	Proposed 2040 MVRTP Project Amendment
City of Aurora	Quail Run Road/Imboden Road (I-70 to 48th Avenue): New 6 Lanes	2030-2040	Change from new 6 lanes to new 4 lanes; modify alignment
City of Aurora	Imboden Road (48th Avenue to 56th Avenue): Widen 2 to 6 Lanes	2030-2040	Change widening to 2 to 4 lanes
City of Aurora	E-470/38th Avenue: New Interchange	N/A	<ul style="list-style-type: none"><li>• Add new locally derived funded interchange</li><li>• Add to 2020-2029 AQ stage</li></ul>
City of Aurora	Steve D. Hogan (6th Avenue) Parkway (SH-30 to E-470): New 2 Lanes	2020-2029 AQ stage	<ul style="list-style-type: none"><li>• Advance to 2015-2019 AQ stage</li><li>• Change to locally derived funded project</li></ul>
City of Aurora	SH-30 (Steve D. Hogan Parkway to Mississippi Avenue): Widen 2 to 4 lanes	N/A	<ul style="list-style-type: none"><li>• New locally derived funded widening</li><li>• Add to 2020-2029 AQ stage</li></ul>
City of Thornton	104th Avenue/SH-44 (Grandview Ponds to McKay Road): Widen 2 to 4 Lanes	2020-2029 AQ stage	Change project limits to Colorado Boulevard to McKay Road
City of Thornton	Thornton Parkway (Colorado Boulevard to Riverdale Road): Widen 2 to 4 Lanes	2030-2040 AQ stage	Advance to 2015-2019 AQ stage
RTD	North Metro Rail (N) Line	2015-2019 AQ stage	Change AQ stage period to 2020-2029



# Public Hearing Documents – 2040 MVRTP

- Summary of proposed 2040 Metro Vision Regional Transportation Plan (MVRTP) amendments
- 2040 MVRTP public hearing draft (April 2019)
- Denver southern subarea 8-hour ozone conformity determination
- Draft CO and PM10 conformity determination



## Public Input

- 30 day public comment period
  - ✓ Notification: website, social media, email blast, postcards, newspaper, etc.
- Public hearing
  - ✓ Capstone of public comment period
  - ✓ Usually held one month before Board action
- No public comment received
- Questions from DRCOG Board members about air quality emissions calculations and compliance



# WE'RE SEEKING PUBLIC COMMENT ON REGIONAL PLANS!

Public hearing  
April 17, 6:30 p.m.

[bit.ly/MVRTP](https://bit.ly/MVRTP)







# Regional Air Quality Conformity – 2040 FC-RTP

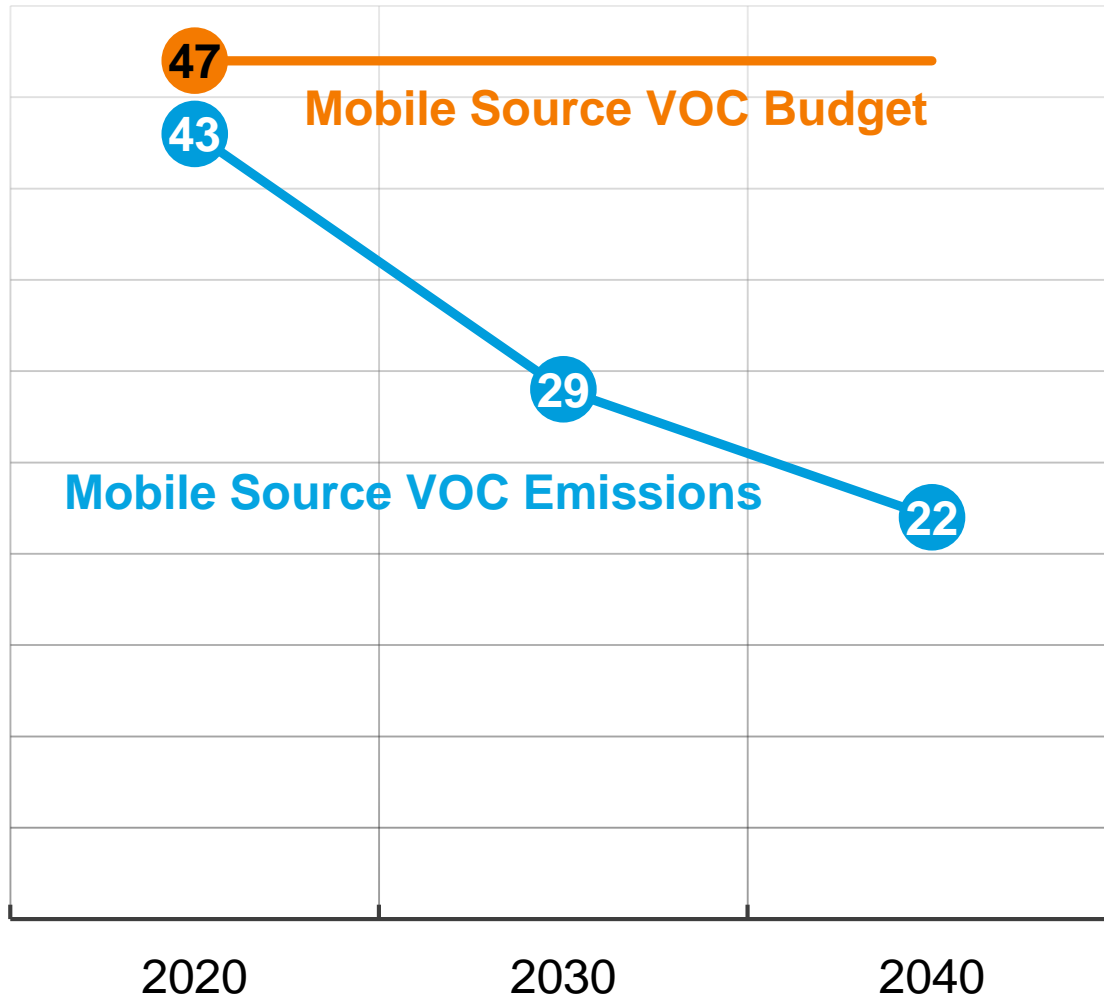
- Must address ozone, carbon monoxide, and PM-10 (particulate matter) pollutants
  - Motor vehicle emission budgets established in State Implementation Plan (SIP)
  - For ozone: on-road motor vehicle emissions are about 16% of VOCs and 31% of NOx
- Regional air quality conformity is for regional system, not individual projects
  - Amendment changes are reflected in regional travel model
- Emission modeling based on most recent planning assumptions
  - Demographics, transportation networks and services, vehicle fleet characteristics, etc.
  - Cleaner vehicles replacing older vehicles
  - DRCOG conducts model runs to produce VMT and operating speeds - - - > CDPHE
  - CDPHE completes final emission calculations and results: must be < budgets
- Amended 2040 FC-RTP passed all emission budget tests



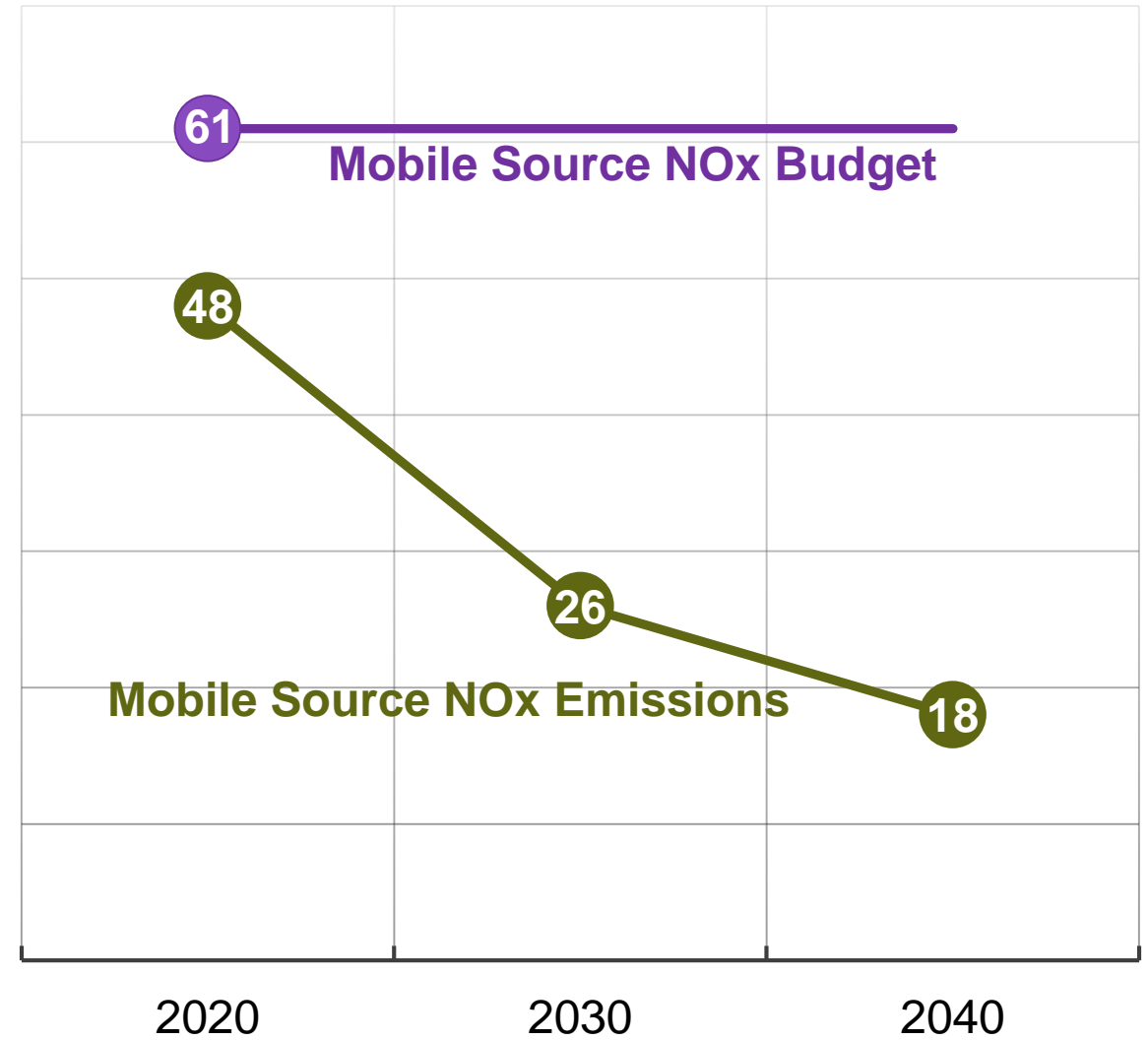
# DRCOG Mobile Source Ozone Precursor Emission Results

## 2018 Amendments

**VOC Emission Results (tons per day)**



**NOx Emission Results (tons per day)**





# PM-10 and CO Emission Results (mobile source - tons per day)

Pollutant and Area	SIP Budgets	Emission Results	Pass/Fail
Carbon Monoxide in Denver Attainment Maintenance Area	2020 - 1,625 2021 - 1,600 20230 - 1,600 2040 - 1,600	472 453 290 205	Pass Pass Pass Pass
Carbon Monoxide in Longmont Attainment Maintenance Area	2020 - 43 2030 - 43 2040 - 43	9 6 4	Pass Pass Pass
Denver Area PM <sub>10</sub>	2020 - 54 2022 - 55 2030 - 55 2040 - 55	27 28 31 33	Pass Pass Pass Pass
NO <sub>x</sub> associated with PM <sub>10</sub>	2020 - 70 2022 - 56 2030 - 56 2040 - 56	39 34 22 16	Pass Pass Pass Pass

- Emissions (mobile sources) for CO and NOx decline over time. PM-10 Increases slightly.

THANK YOU!